Learn why GreenPrint lands are important

Maryland GreenPrint Conservation Priorities

- Maryland's natural places provide habitat for many unique plants and animals

- Nature's services keep our air and water clean and healthy, support jobs, create exceptional outdoor experiences and provide other services that boost our economy and enhance our quality of life.

- Biologists at the Maryland Department of Natural Resources have mapped where these important natural places occur based on the analysis of over 30-years of collected data and the sceintific expertise of agency ecologists.

GreenPrint Conservation Themes

- Maryland's natural landscape is composed of many different types of natural resources ranging from forests, streams and rivers, bogs, coastal marshes, underwater nursery habitats and many others.

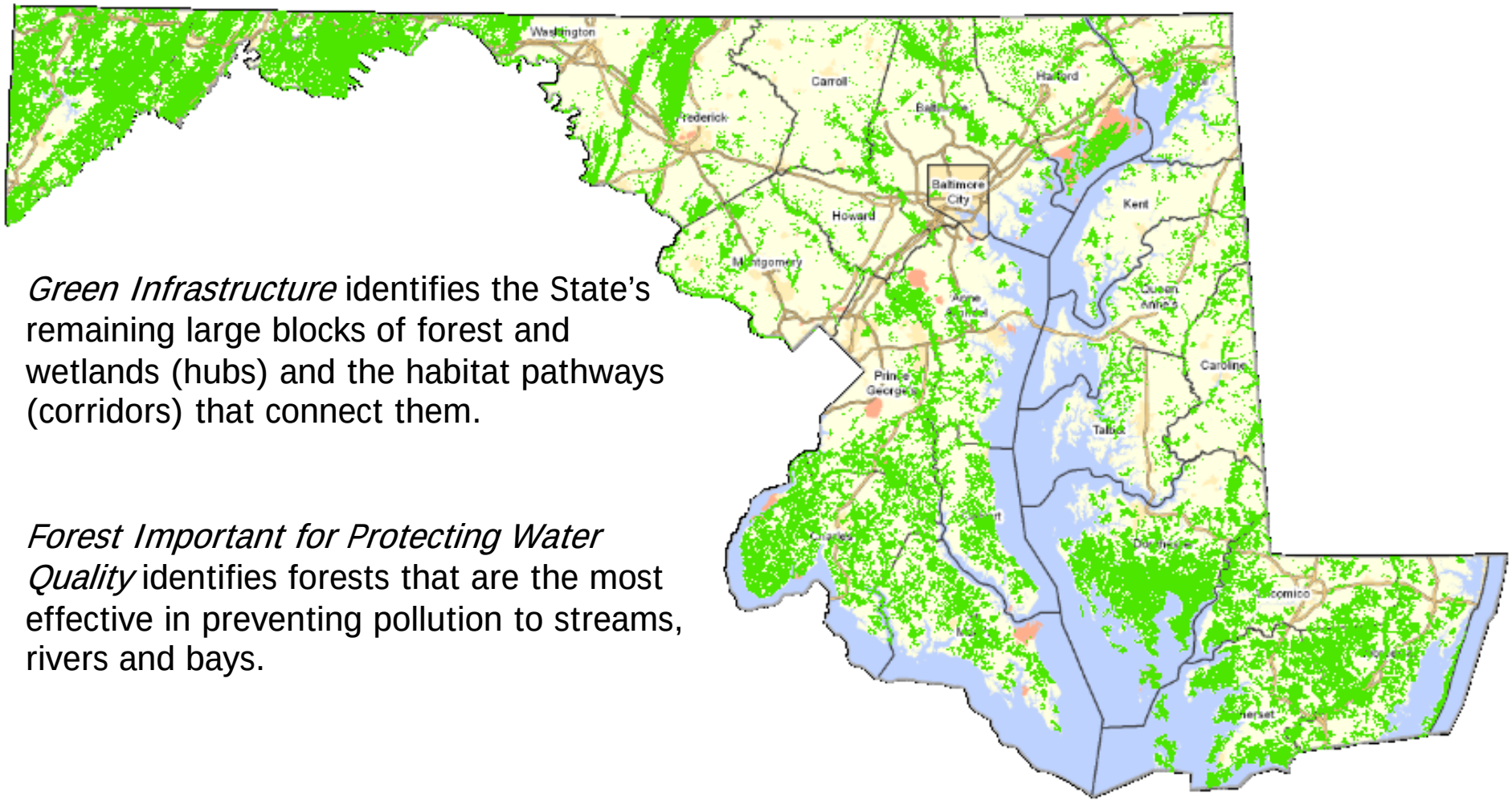
- Each of these different groups of natural resources require specialized approaches for conservation.

- DNR biologists have addressed this by creating several distinct GreenPrint Conservation Themes, each with its own set of maps, to identify where these valuable resources occur.

GreenPrint Conservation Themes

- Maryland's natural resources have been grouped into the following themes
  - Wildlife and Rare Species Habitat
  - Green Infrastructure and Forests Important for Protecting Water Quality
  - Nontidal Streams and Fisheries
  - Tidal Fisheries, Bay and Coastal Ecosystems
  - Areas Important for Climate Change Adaptation

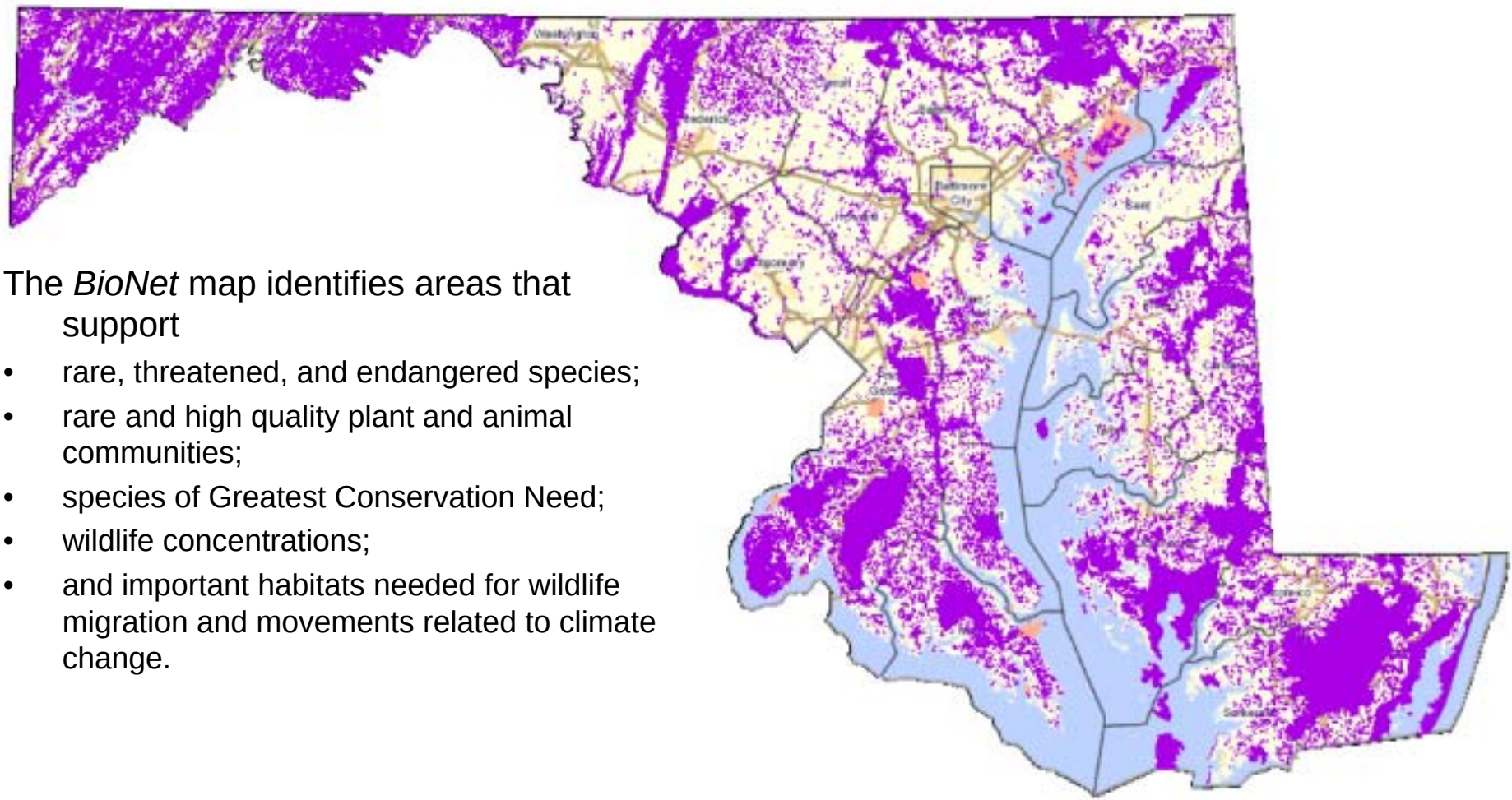
Green Infrastructure and Forests Important for Protecting Water Quality



Green Infrastructure identifies the State's remaining large blocks of forest and wetlands (hubs) and the habitat pathways (corridors) that connect them.

Forest Important for Protecting Water Quality identifies forests that are the most effective in preventing pollution to streams, rivers and bays.

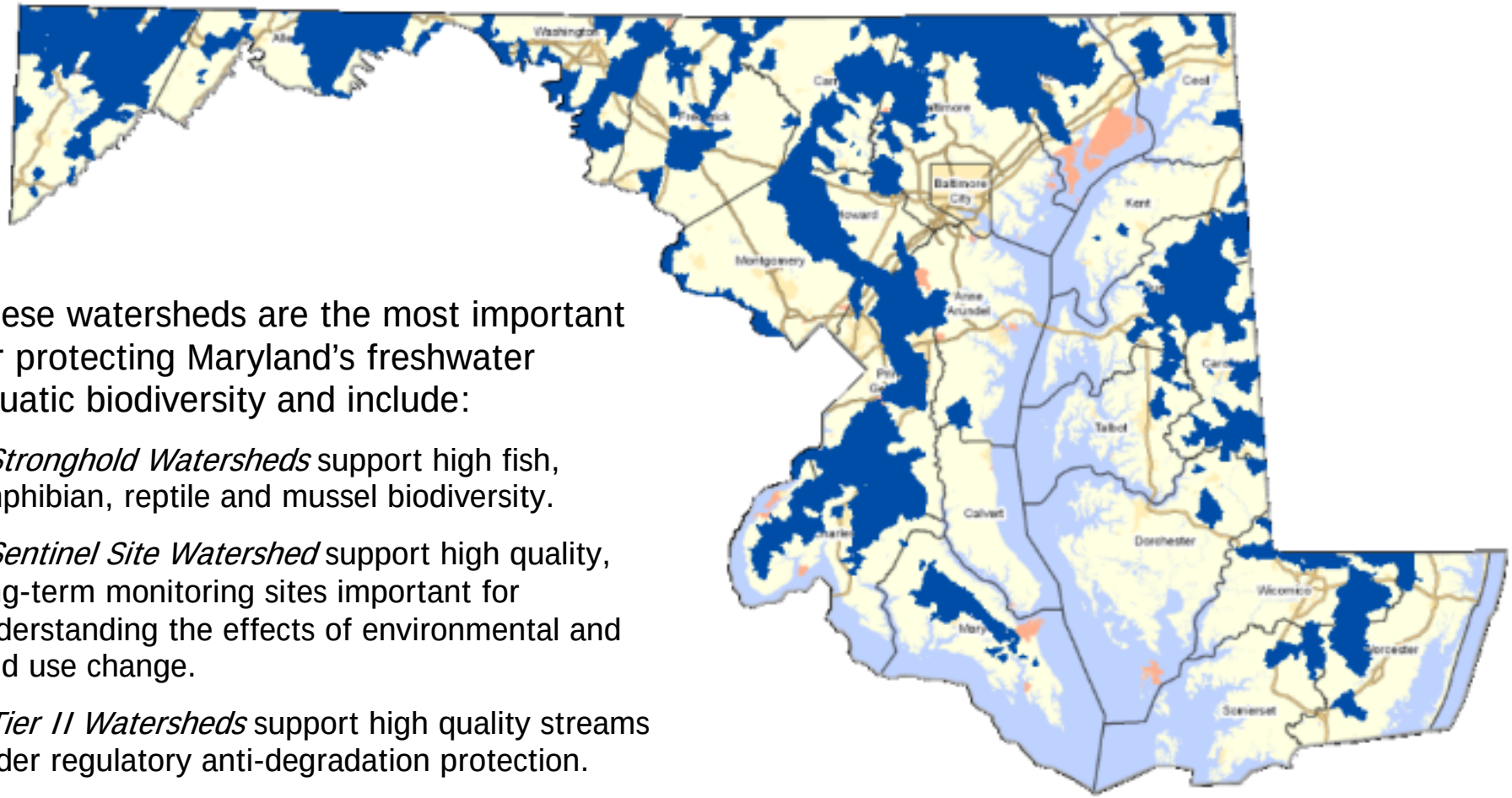
Wildlife and Rare Species Habitat



The *BioNet* map identifies areas that support

- rare, threatened, and endangered species;
- rare and high quality plant and animal communities;
- species of Greatest Conservation Need;
- wildlife concentrations;
- and important habitats needed for wildlife migration and movements related to climate change.

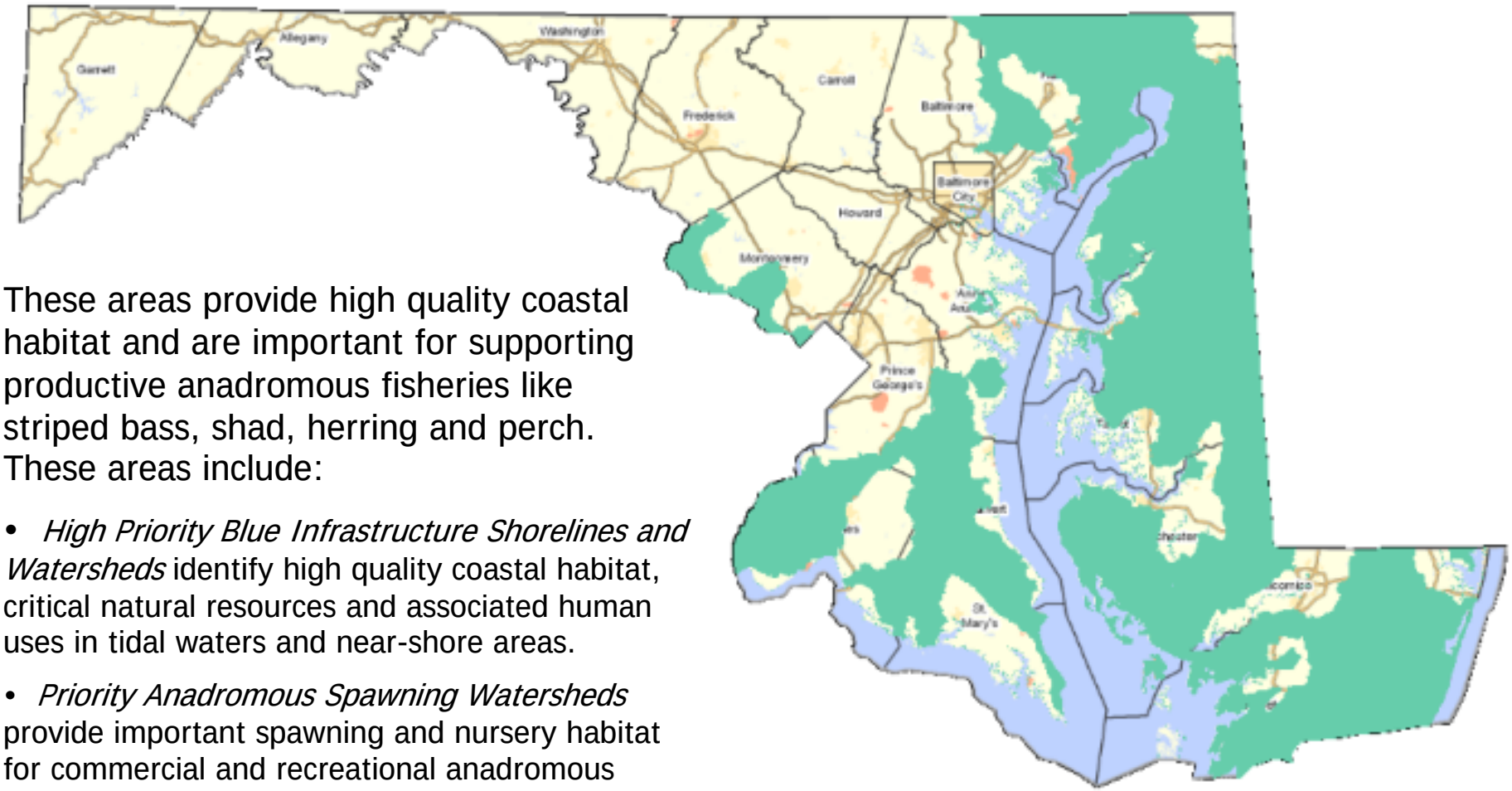
Nontidal Streams and Fisheries



These watersheds are the most important for protecting Maryland's freshwater aquatic biodiversity and include:

- *Stronghold Watersheds* support high fish, amphibian, reptile and mussel biodiversity.
- *Sentinel Site Watershed* support high quality, long-term monitoring sites important for understanding the effects of environmental and land use change.
- *Tier II Watersheds* support high quality streams under regulatory anti-degradation protection.
- *Cold Water Preservation Areas* support aquatic species that require cool water to survive.

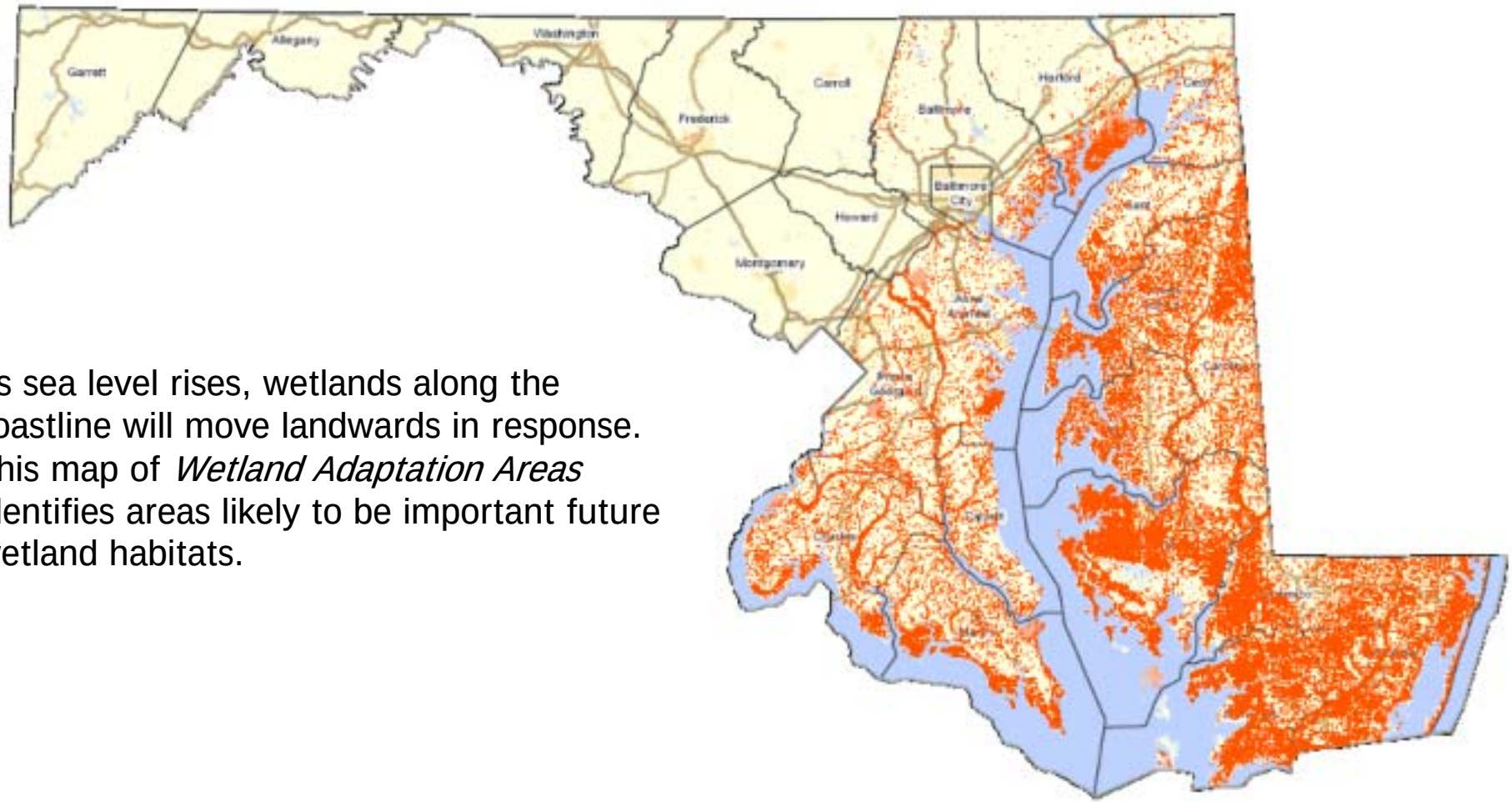
Tidal Fisheries, Bay and Coastal Ecosystems



These areas provide high quality coastal habitat and are important for supporting productive anadromous fisheries like striped bass, shad, herring and perch. These areas include:

- *High Priority Blue Infrastructure Shorelines and Watersheds* identify high quality coastal habitat, critical natural resources and associated human uses in tidal waters and near-shore areas.
- *Priority Anadromous Spawning Watersheds* provide important spawning and nursery habitat for commercial and recreational anadromous fisheries.

Areas Important for Climate Change Adaptation



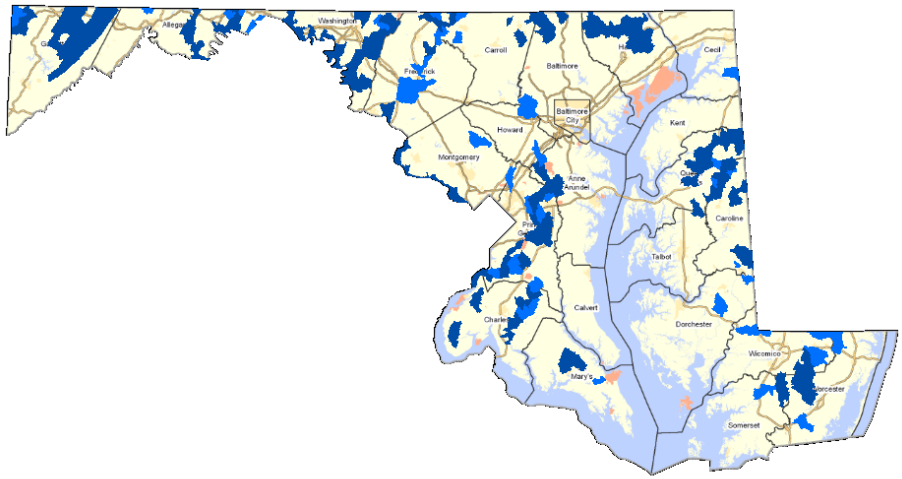
As sea level rises, wetlands along the coastline will move landwards in response. This map of *Wetland Adaptation Areas* identifies areas likely to be important future wetland habitats.

What are Targeted Ecological Areas?

- Targeted Ecological Areas (TEAs) are lands and watersheds identified by the Maryland Department of Natural Resources as the most ecologically valuable areas in the State
- They are the “Best of the Best”
- TEAs are preferred for conservation funding through Stateside Program Open Space

How are Targeted Ecological Areas Identified?

- Each GreenPrint Conservation Theme also assigns ecological priorities so that the highest priority, or the *most ecologically important areas*, in each theme can be identified.

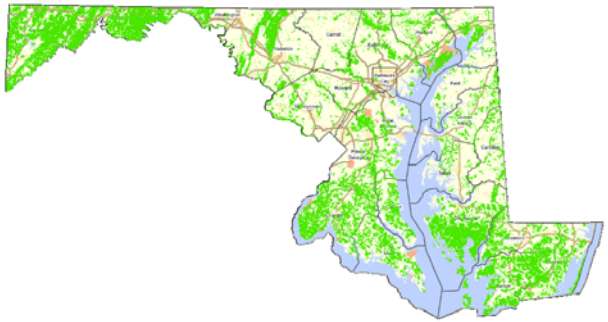


- For example, this map shows the most important watersheds for freshwater aquatic biodiversity in dark blue. The lighter blue watersheds are also extremely important, but don't rise to the top from a statewide perspective.

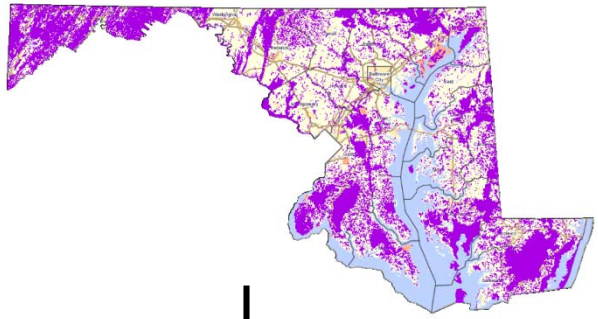
Identifying Targeted Ecological Areas

- The first step in identifying TEAs is to combine the most ecologically important areas from each GreenPrint map

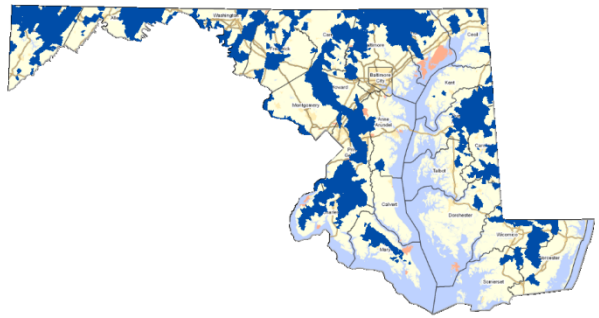
Green Infrastructure and Important Forests



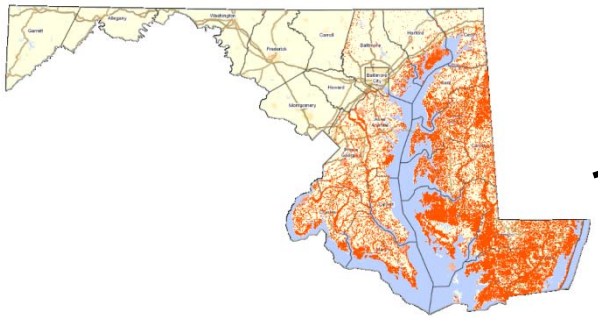
Wildlife and Rare Species Habitat

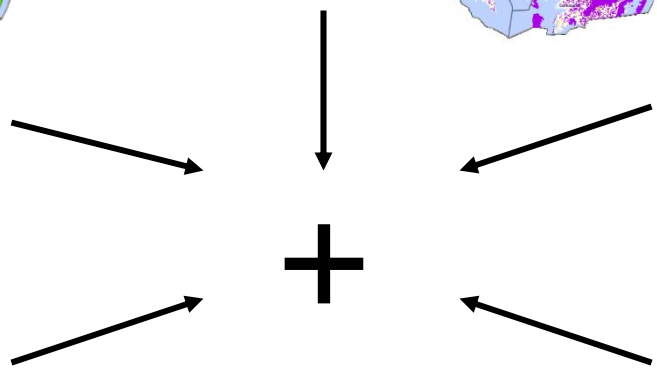


Nontidal Streams and Fisheries

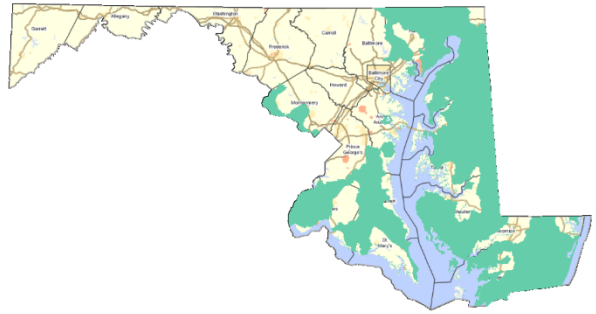


Wetland Adaptation Areas





Tidal Fisheries, Bay and Coastal Ecosystems



Identifying Targeted Ecological Areas

Removing development from TEAS

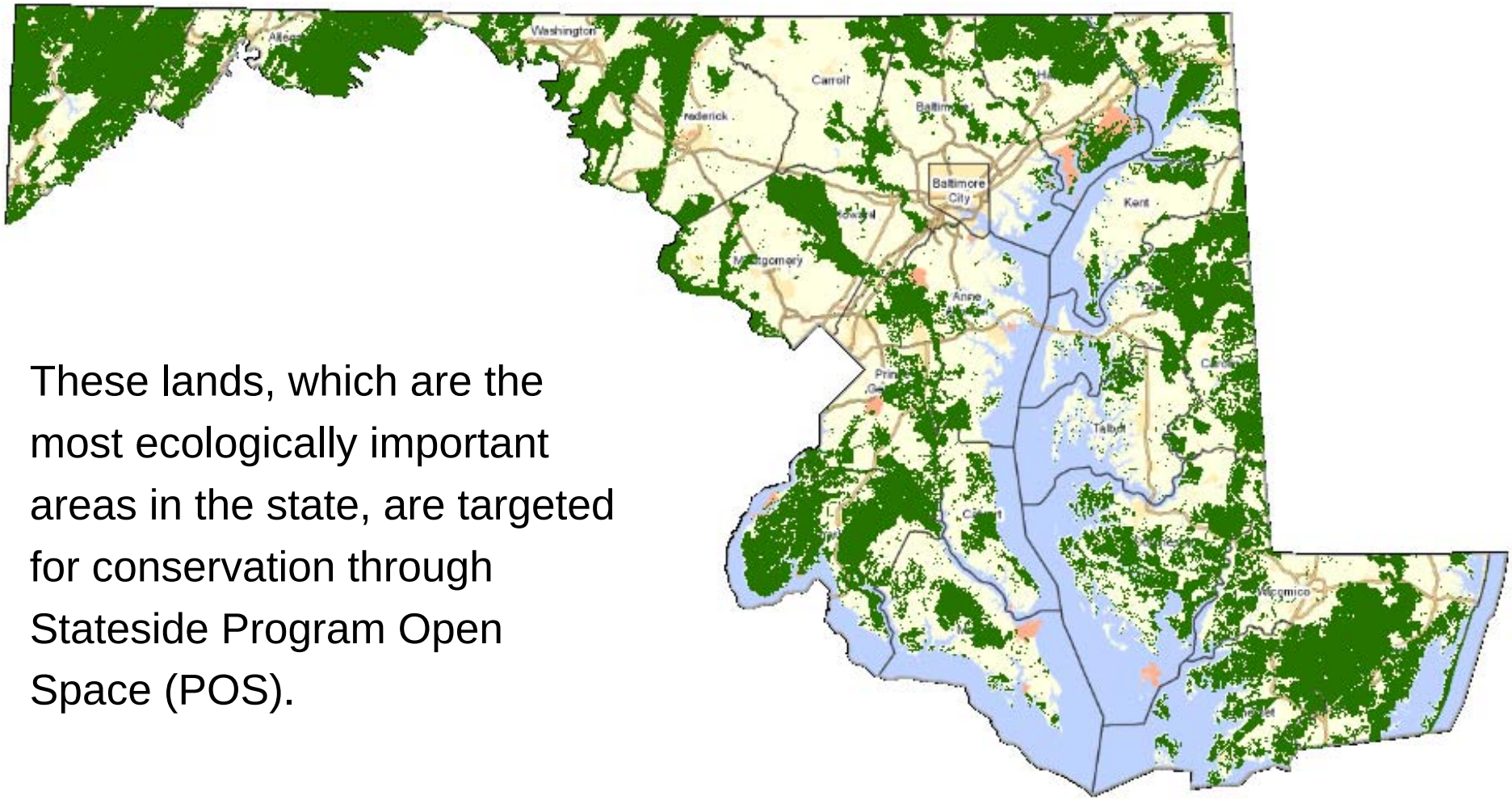
- Development can be found within certain GreenPrint areas, especially if the area is a priority watershed, or if development has recently occurred.
- Since highly developed areas would not be eligible for Stateside POS funding, they were removed from the map.

Identifying Targeted Ecological Areas

Adjusting TEAs for Sea Level Rise

- Sea level is rising due to a combination of regional land subsidence and changes in climate.
- Based on current projections, sea level is expected to rise at least 1.7 feet by 2050.
- Coastal areas subject to sea level rise within a 0-2 foot elevation zone were removed from the map to avoid spending limited funds in areas likely to be submerged.

2011 Targeted Ecological Areas



These lands, which are the most ecologically important areas in the state, are targeted for conservation through Stateside Program Open Space (POS).

How does the 2011 TEA map compare to the 2008 TEA map?

- In 2008, the first TEA map was created and used in GreenPrint to target and track land conservation efforts. About 1.5 million acres of unprotected TEA were identified.
- In 2011, the TEA map was updated to include new resource assessments and refreshed data. About 1.8 million acres of unprotected TEA were identified.
- In addition, the individual GreenPrint data layers are now provided on the GreenPrint interactive map.
- This allows users to get a better understanding of where the State's important natural resources occur, what they are and why certain TEA's are important.